

the colour above is decidedly as light as or lighter than that in the St. Thomas series. There is, in fact, an apparently endless series of gradations in the depth of colour above and in the disposition of the "solid" portion of the black on the under parts in birds from the Bahamas and the Lesser Antilles. I do not find, as Mr. Ridgway says on the same page, that this "solid" portion of the black chest in specimens from St. Thomas is as restricted as in *E. marchii*; nor is it so in specimens from St. Kitts, Virgin Islands, Dominica, St. Vincent, Montserrat, Antigua, and Anguilla. In examples from all these islands the black *may* come well over the abdomen, with only narrow edgings to the feathers in the middle line. The flanks are dull olive-grey. It would appear, indeed, that the disposition of the black on the under parts is largely a question of age; and I should be inclined to unite the Bahaman and the Lesser Antillean birds under the name of *E. bicolor*.

V.—Notes on the Parrots. (Part VII.)

By T. SALVADORI, H.M.B.O.U.*

Subfam. PSITTACINÆ and PALÆORNITHINÆ.

(Cat. Birds Brit. Mus. xx. pp. 377, 387.)

Subfam. PSITTACINÆ.

PSITTACUS Linn.

PSITTACUS ERITHACUS Linn.; Boc. Journ. Sc. Lisb. (2) no. xiii. p. 10 (1895) (Fernando Po); Sclat. P. Z. S. 1902, p. 170; Salvad. Mem. Ac. Tor. (2) liii. p. 119 (1903); Rehnw. Vög. Afr. ii. p. 2 (1902).

Psittacus erythacus Hartert, Journ. f. Orn. 1886, p. 598 (Niger, Lokodscha, Congo, Accra); Jacks. & Sharpe, Ibis, 1902, p. 612; Alex. Ibis, 1903, p. 397.

Psittacus erythacus megarhynchus Hartert, Kat. Vög. Senck. Mus. p. 157 (note, Congo) (1891).

* Continued from 'The Ibis,' 1906, p. 659.

Psittacus erithacus var. *megarhyncha* Dub. Syn. Av. p. 3 (1899).

Psittacus megarhynchus Sharpe, Hand-list, ii. p. 26, n. 2 (1900).

Dr. Hartert, noticing that specimens from Congo are paler and have a much stronger bill, has distinguished them by a trinomial.

Dr. Selater has mentioned a specimen with a pure white tail living in the Zoological Society's Gardens.

CORACOPSIS Wagl.

CORACOPSIS VASA (Shaw); Richm. Pr. U. S. Nat. Mus. xix. p. 685 (1897).

CORACOPSIS NIGRA (Linn); Richm. t. c. p. 685 (1897).

CORACOPSIS BARKLYI E. Newt.; Ridgw. Pr. U. S. Nat. Mus. xviii. p. 513; Nicoll, Bull. B. O. C. xvi. p. 106; Ibis, 1905, p. 709 (Praslin I.).

DASYPTILUS Wagl.

DASYPTILUS PESQUETI (Less.); Rothsch. & Hartert, Nov. Zool. iii. p. 17 (1896), viii. p. 81 (1901).

Subfam. PALÆORNITHINÆ.

ECLECTUS Wagl.

ECLECTUS PECTORALIS (P. L. S. Müll.); Hartert, Nov. Zool. v. p. 530 (Sudest Islands, Solomons, and New Guinea) (1898).

Eclectus pectoralis pectoralis Rothsch. & Hartert, Nov. Zool. viii. p. 81 (1901).

Eclectus pectoralis aruensis Gray; Hartert, op. cit. iii. p. 535 (1896); Rothsch. & Hartert, op. cit. viii. p. 82 (1901).

Eclectus aruensis Sharpe, Hand-list, ii. p. 27, n. 2 (1900).

Eclectus pectoralis var. *aruensis* Dub. Syn. Av. ii. p. 1054 (1904).

Eclectus pectoralis solomonensis Rothsch. & Hartert, Nov. Zool. viii. pp. 82, 188, 378 (1901); ix. p. 588 (1902); xii. p. 253 (1905) (Rendova, New Georgia, Gizo, Bougainville).

Eclectus pectoralis var. *solomonensis* Dub. Syn. Av. ii. p. 1054 (1904).

Gray was the first to point out some slight differences between the Aru birds and those from the mainland of New Guinea. I have not failed to mention them (Orn. Pap. c Mol. i. p. 201), but I am still of opinion that these differences are not sufficient for establishing even a subspecies. The same remark applies to the Solomon Islands birds*, which certainly are not smaller than those from Korido. Beccari's and d'Albertis's series shew individual variations in size and in the green colouring of the males.

ECLECTUS RORATUS (P. L. S. Müll.) ; Hartert, Nov. Zool. x. p. 46 (1903) (Batjan, Morty).

ECLECTUS CARDINALIS (Bodd.) ; Hartert, op. cit. vii. p. 229 (1900) (Kayeli).

ECLECTUS WESTERMANNI (Bp.) ; Rothsch. Bull. B. O. C. x. p. ii (1899) ; Sch. P. Z. S. 1902, p. 170, pl. xviii. (♂ ♀).

? *Eclectus* sp. incert., Everett apud Hartert, Nov. Zool. iii. p. 596, n. 64 (1896) (Lomboek).

Several specimens of this rare species have been received alive by the Hon. Walter Rothschild and deposited by him in the Zoological Society's Gardens.

The male was already known, it is entirely green without the red patches on the sides of the breast.

The *female*, hitherto unknown, is similar to the female of *E. pectoralis*, but differs in having a blue collar and dull purple lower breast, while *E. pectoralis* has both collar and breast of the same bright blue colour. The under tail-coverts are also of a much darker and duller red. The ring of blue round the eyes of *E. pectoralis* is, moreover, absent in *E. westermanni*. Both sexes are likewise much smaller than in *E. pectoralis* (Rothschild).

The habitat of this species is still unknown.

* Dr. Hartert (Nov. Zool. v. p. 530) did not find that the Solomon birds were different from those of the Sudest Islands and New Guinea.

ECLECTUS CORNELIA (Bp.) ; Hartert, Nov. Zool. iii. p. 587 (Sumba I.) (1896), v. p. 473 (1898) ; Sharpe, Hand-list, ii. p. 27 (1900).

The habitat and the male of this species were discovered by Mr. Doherty.

Male. Above dark green, most of the feathers with lighter borders, head and neck lighter green : primaries below and inner webs above black : outer webs deep blue, mostly with narrow greenish edges : under side dark green, flanks also dark green ; sides of breast and upper abdomen, as well as under wing-coverts (except just on the edge of the wing), red : rectrices above dark green, blue towards the tip, tips yellowish ; tail black below, with dirty yellow tips. " Iris orange-ochre, maxilla orange-red with yellow tip, mandible black " (*Doherty*).

Hab. Sumba (Lesser Sunda Islands).

GEOFFROYUS Bp.

GEOFFROYUS KEYENSIS Schleg.

Geoffroyus personatus capistratus (Gray) ; Hartert, Nov. Zool. viii. p. 4 (1901) (Key I.) ; Rothsch. & Hartert, t. c. p. 84 (1901).

GEOFFROYUS TIMORLAOENSIS Meyer.

Geoffroyus personatus timorlaoensis Rothsch. & Hartert. l. c.

GEOFFROYUS PERSONATUS (Shaw) ; Hartert, op. cit. v. p. 119 (1898) (Timor).

Geoffroyus personatus personatus Rothsch. & Hartert. op. cit. viii. p. 82 (1901) ; Hartert, op. cit. xi. p. 191 (1901).

GEOFFROYUS ARUENSIS (Gray).

Geoffroyus personatus aruensis Rothsch. & Hartert, t. c. p. 84 (1901) (Aru Islands, S.E. New Guinea, and Fergusson I.).

GEOFFROYUS ORIENTALIS Meyer, Abh. k. zool. u. anthrop. Mus. Dresd. 1890-91, no. 4, p. 4 (1891) ; Sharpe, Hand-list. ii. p. 28, no. 6 (1901).

Geoffroyus personatus orientalis Rothsch. & Hartert, Nov. Zool. viii. p. 84 (1901) (Huon Gulf).

Allied to *G. aruensis*.

I have received from Dr. Madarász two specimens of this species for examination.

The *male* is almost undistinguishable from its Aruan relative, the blue of the head is perhaps less violet. I do not see that the brown cubital patch is paler.

The *female* has the brown of the head above with a bluish shade; whether the cubital brown spot is paler than in the female of *G. aruensis* I cannot say, having no female of the latter at hand for comparison.

Hab. Huon Gulf (N.E. New Guinea).

A doubtful species in my opinion, also according to Rothschild and Hartert.

GEOFFROYUS SUDESTIENSIS De Vis; Sharpe, Hand-list, ii. p. 28, n. 7 (1900).

Geoffroyus aruensis sudestiensis Hartert, Nov. Zool. v. p. 531 (1898); vi. pp. 81, 213 (1899).

Geoffroyus personatus sudestiensis Rothsch. & Hartert, op. cit. viii. p. 84 (Sudest and St. Aignan Islands in the Louisiade Group) (1901).

“Closely allied to *aruensis*, but differing in the total absence of a reddish-brown spot near the shoulders.” (Rothsch. & Hartert.)

GEOFFROYUS CYANICARPUS Hartert; Sharpe, Hand-list, ii. p. 28, n. 5 (1901).

Geoffroyus aruensis cyanicarpus Hartert, Nov. Zool. vi. p. 81 (Rossel I.) (1899).

Geoffroyus personatus cyanicarpus Rothsch. & Hartert, op. cit. viii. p. 84 (1901).

“The males of the *Geoffroyus* from Rossel Island agree with *G. aruensis sudestiensis* De Vis in the absence of the reddish-brown patch on the wing-coverts; but they differ from both *G. aruensis aruensis* and *G. aruensis sudestiensis* in having the whole edge of the wing from the bend to the

beginning of the outermost primary blue like the under wing-coverts, instead of light green." (*Hartert.*)

Hab. Rossel Island in the Louisiade Archipelago.

GEOFFROYUS RHODOPS (*Schleg.*); *Hartert*, *Nov. Zool.* vii. p. 230 (1900) (*Buru*).

Geoffroyus personatus rhodops *Hartert*, *op. cit.* viii. p. 4 (1901) (*Ceram-laut*); *Rothsch. & Hartert*, *t. c.* p. 83 (1901) (*Buru, Amboina, Ceram, Ceram-laut*).

GEOFFROYUS EXPLORATOR *Hartert.*

Geoffroyus personatus explorator *Hartert*, *t. c.* p. 4 (*Manawoka, Goram Islands*) (1901); *Rothsch. & Hartert*, *t. c.* p. 83 (1901).

"Differs from *G. rhodops* in its much smaller size, the wing of the male measuring only 175–178 mm., against 189–195 in *G. rhodops*, in the under mandible being apparently always pale, and in the green colour being as a rule more yellowish. The crown of the female seems to be lighter brown." (*Hartert.*)

Hab. "Goram and Manawoko Islands, between Ceram and Key" (*Hartert.*).

Scarcely different from *G. rhodops*.

GEOFFROYUS FLORESIANUS *Salvad.*; *Hartert*, *Nov. Zool.* v. p. 44 (1898).

Geoffroyus floresianus floresianus *Hartert*, *t. c.* p. 172 (1898).

Geoffroyus personatus floresianus *Rothsch. & Hartert*, *op. cit.* viii. p. 83 (1901).

The female has the head dark brown (*Rothsch. & Hartert.*).

GEOFFROYUS SUMBAVENSIS *Salvad.*; *Hartert*, *op. cit.* iii. pp. 563, 596 (*Lombok*) (1896).

Geoffroyus floresianus sumbavensis *Hartert*, *op. cit.* v. p. 473 (1895).

? *Geoffroyus lansbergii* *Finsch*, *Not. Leyd. Mus.* xx. p. 225 (1898) (*Sumbawa*); *Sharpe*, *Hand-list*, ii. p. 28, n. 12 (1901).

Geoffroyus personatus sumbavensis Rothsch. & Hartert, Nov. Zool. viii. p. 83 (1901).

The adult female has the head dull brownish brick-red (Hartert).

Lombok birds, according to Dr. Hartert, are the same as those from Sumbawa or Sambawa.

According to Dr. Finsch, the type of *G. lansbergii* is a young bird, and most likely a curious variety, with light brown cross-bars on the upper parts.

GEOFFROYUS TJINDANÆ Meyer, Not. Leyd. Mus. xiv. p. 267 (Sumba I.) (1892); Hartert, Nov. Zool. iii. p. 587 (1896).

Geoffroyus jukesii Meyer (nec Gr.), Verh. z.-b. Ges. Wien, 1881, p. 762 (Sumba); ? id. Sitzb. Ges. Isis Dresd. Abh. i. p. 15 (Wetter) (1884).

Geoffroyus floresianus tjindanæ Hartert, Nov. Zool. v. p. 472 (1898).

Geoffroyus personatus tjindanæ Rothsch. & Hartert, op. cit. viii. p. 83 (1901).

Similar to *G. personatus* in the yellowish-green coloration, but larger and with the cap coming much lower down on the nape. Wing 6.3–6.7 inches; tail 3.5; bill 1–1.05.

Hab. Sumba or Sandalwood Island.

This is Meyer's description, but, according to Dr. Hartert, Sumba birds are darker than those from Sumbawa (*G. sumbavensis*), some of which are distinctly *yellowish-green*!

The last remark about this species by Rothschild and Hartert reads as follows: "Quite like *G. sumbavensis*, but slightly larger, under wing-coverts perhaps a shade lighter."

It would be interesting to compare the female of this species with those of the allied forms, as in the genus *Geoffroyus* females of allied species often differ more than the males.

GEOFFROYUS PUCHERANI Bp.

Geoffroyus personatus pucherani Rothsch. & Hartert, Nov. Zool. viii. p. 85 (1901).

GEOFFROYUS JOBIENSIS (Meyer).

Geoffroyus personatus jobiensis Rothsch. & Hartert, Nov. Zool. viii. p. 85 (1901) (Jobi Island, Konstantinhafen, Stephansort).

This species is not peculiar to Jobi, but is found also along the north-eastern coast of New Guinea, as far east as Astrolabe Bay.

GEOFFROYUS MYSORENSIS (Meyer).

Geoffroyus personatus mysorensis Rothsch. & Hartert, Nov. Zool. viii. p. 85 (1901).

GEOFFROYUS DORSALIS Salvad. ; Rothsch. & Hartert, l. c.

I have already mentioned the probability of *G. dorsalis* being an accidental variety of *G. pucherani* : Rothschild and Hartert are very positive on the subject, but it remains to explain the strange character shown by the type of *G. dorsalis* in the yellowish tinge on the inner web of the innermost secondaries near the scapulars, a feature that *G. dorsalis* has in common with *G. simplex* and *G. heteroclitus*.

GEOFFROYUS CYANICOLLIS (S. Müll.).

Geoffroyus cyanicollis cyanicollis Rothsch. & Hartert, l. c. ; Hart. op. cit. x. p. 46 (1903).

GEOFFROYUS OBIENSIS (Finsch).

Geoffroyus cyanicollis obiensis Rothsch. & Hartert, op. cit. viii. p. 86 (1901).

According to Rothschild and Hartert, this species is confined to the Obi group, while specimens from Batchian belong to *G. cyanicollis*, which "sometimes has the same brown-red rump which seems to be a constant character of *G. obiensis*." According to these ornithologists, in the Obi bird "the light nape-band is in both sexes wider than in the birds from Halmahera, Batjan, and Morty, the greenish-blue colour of the nape-band extending nearly or quite up to the hind margin of the eye, while in typical *cyanicollis* it is widely separated from the eye. The lilac-blue crown of the male of *G. obiensis*, as well as the brownish-blue one of the female,

never extends on to the occiput, while in typical *cyaniçollis* it occurs in the occiput and reaches the nape."

GEOFFROYUS HETEROCLITUS (H. & J.); Rothsch. & Hartert, Nov. Zool. viii. pp. 86, 188, 378 (1901); ix. p. 588 (1902); xii. p. 254 (1905) (Rendova, New Georgia, Gizo, Choiseul, Bougainville).

GEOFFROYUS SIMPLEX (Meyer); Rothsch. & Hartert, op. cit. viii. p. 86 (1901).

It still remains to be decided whether the specimens from Eastern New Guinea are the same as those from the Berau Peninsula.

PRIONITURUS Wagl.

PRIONITURUS PLATURUS Temm.; Hartert, Nov. Zool. iii. p. 150 (1896); Meyer & Wigl. Birds of Celebes, i. p. 133 (1898).

Prioniturus platurus platurus Hartert, Nov. Zool. v. p. 89 (1898).

Dr. Meyer and Mr. Wilesworth have pointed out some slight differences which appear on comparing specimens from the following localities: Mainland of Celebes, Peling and Banggai Islands, Eastern Peninsula of Celebes, Lembeh Island, Talaut Islands, Sangi and Siao. The Talaut form has been named by Dr. Hartert.

The specimen from Buru, mentioned by Schlegel, has turned out to belong to a distinct species.

PRIONITURUS TALAUTENSIS Hartert; Sharpe, Hand-list, ii. p. 29, n. 2 (1900).

Prioniturus platurus talautensis Hartert, Nov. Zool. v. p. 89 (1898) (Talaut I.).

"The mantle and wings of the Talaut birds are very much lighter and more greyish green than in *P. platurus platurus*, and the wing is from 5 to 10 mm. shorter. The orange patch across the mantle is not more orange than in most Celebes skins; but in most, though not all, Talaut males the lilac-bluish spot on the nape is paler." (Hartert.)

Hab. Talaut Islands.

PRIONITURUS MADA Hartert.

Electus platyurus, part., Schleg. Mus. P.-B. iii. Psittaci, Revue, p. 22 (female from the Bay of Bara) (1874).

Prioniturus mada Hartert, Nov. Zool. vii. p. 230 (Buru) (1900).

Immature male. "Green, feathers of nape with greyish-blue edges, interseapulum mixed with bluish grey, lower back greyish blue, feathers of rump bordered with greyish blue. Lesser upper wing-coverts and broad line on inner band of wing to below the scapulars of a somewhat ashy blue. Under surface of a much lighter green, sides of chest darker and washed with blue; under wing-coverts washed with blue near the margin; larger under tail-coverts bright yellow, not yellowish green. Wing 175 mm., lateral rectrices 97, bill from gape 22, tarsus 15." (*Hartert.*)

The adult male is not yet known; a young female is in the Leyden Museum.

PRIONITURUS FLAVICANS Cass.; Sharpe, Ibis, 1894, p. 248; Ogilvie-Grant, Ibis, 1895, p. 466; Meyer & Wigl. Abh. Mus. Dresd. 1895, n. 8, p. 5; iid. B. of Celebes, i. p. 138 (1898).

PRIONITURUS VERTICALIS Sharpe, Bull. B. O. C. iii. p. x (Tawi-Tawi, Bongao, and Sibutu, Sooloo Is.) (1893); id. Ibis, 1894, p. 248, pl. vi.; id. Hand-list, ii. p. 29, n. 4 (1900); McGr. & Wore. Bureau of Gov. Lab. [Philippines] no. 36, p. 48 (1906).

"*P. similis P. flavicanti*, sed macula verticali scarlatina nec coccinea, pileo argentescenti-cyaneo nec cæruleo, et gastræo flavicanti-viridi distinguendus. Long. tot. 13·0 poll., alæ 7·2, caud. 3·4, rectr. med. 5·8.

"Closely allied to the Celebean form *P. flavicans*. It has the sides of the neck and hind-neck paler than the rest of the back, but merely of a yellowish-green colour instead of the golden olive, or, as Salvadori calls it, the 'olive-brown' colour of the hind-neck, which, in *P. flavicans*, is also found extending across the fore-neck and chest. *P. verticalis* has the under surface of the body entirely yellowish, washed with green. The crown of the head is of a silvery cobalt, extending over the nape, and in the centre of the crown is a

scarlet spot. In *P. flavicans* the crown is darker, the blue is of a lilac tint, and only extends to the occiput, while the median spot is crimson.

“The *female* differs from the male in being emerald-green all over, and wanting the verditer-blue on the head as well as the scarlet spot on the latter.

“*Hab.* Sooloo Islands: Tawi-Tawi, Bongao, and Sibutu.”
(*Sharpe.*)

PRIONITURUS MONTANUS Whitehead, MS. ; Ogilvie-Grant, Bull. B. O. C. iv. p. xli (N. Luzon) (1895) ; id. *Ibis*, 1895, p. 466 ; Sharpe, Hand-list, ii. p. 29, n. 5 (1900) ; McGregor, Bull. Philipp. Mus. no. 3, p. 10 (1904) ; McGreg. & Worc. Bureau of Gov. Lab. no. 36, p. 48 (1906).

“*Adult male.* Back of the head and nape dark grass-green, only slightly brighter than the back and rest of the upper parts, the blue tips to the feathers of the forehead and crown darker [than in *P. verticalis*], commencing at the base of the bill and extending over the lores, sides of the head, and cheeks ; under-parts dull grass-green, with scarcely a trace of yellow, so characteristic of the Sibutu bird.

“*Adult female.* Differs from the female of *P. verticalis* in having the head dull grass-green, the forehead, lores, sides of the crown, and feathers round the eyes being washed with blue. The under-parts are like those of the male and never yellow-green as in the Sibutu female. ‘Eyes stone-grey, bill and feet whitish lead-grey’ (*Whitehead*).

“Total length 12·2 inches, wing 6·4, tail 5·2, tarsus 0·65.”
(*Grant.*)

Similar to *P. verticalis* Sharpe, from the Sulu Archipelago, but the hind part of the crown and nape deep grass-green, scarcely brighter than the rest of the upper parts ; cheeks and sides of the head blue. Total length 12·4 inches ; wing 6·3 ; tarsus 0·65.

Hab. Mountains of Lepanto in Northern Luzon.

PRIONITURUS DISCURUS (Vieill.) ; Ogilvie-Grant, *Ibis*, 1895, p. 263 ; 1896, p. 560 ; 1897, p. 248 ; Sharpe, Hand-list, ii. p. 29, n. 6 (1900) ; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906) ; Ogilvie-Grant, *Ibis*, 1906, p. 494.

PRIONITURUS SULUENSIS W. Blas.; Sharpe, Hand-list, ii. p. 29, n. 7 (1900).

Mr. Worcester makes *P. suluensis* a synonym of *P. discurus*, stating that "a careful examination of the specimens obtained by Bourns and himself in Sulu failed to disclose any differences between them and typical *P. discurus*."

PRIONITURUS WATERSTRADTI Rothsch. Bull. B. O. C. xiv. pp. 71, 72 (S. Mindanao) (1904); Ogilvie-Grant, Bull. B. O. C. xvi. p. 19 (1905); McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906); Ogilvie-Grant, Ibis, 1906, p. 465 (Mt. Apo, 8000 ft.).

"The brownish rump, less amount of blue on the forehead, and smaller size distinguish this bird easily from *Prioniturus discurus*." (Rothschild.)

Hab. Mount Apo, South Mindanao, 3000 feet.

Rothschild supposes that the allied *P. discurus*, which occurs also on Mindanao, lives at lower altitudes.

PRIONITURUS MINDORENSIS Steere; Hartert, Nov. Zool. ii. p. 487 (1895); Sharpe, Hand-list, ii. p. 29, n. 8 (1900); McGregor, Bureau of Gov. Lab. no. 34, p. 19 (1905); McGreg. & Worcest. op. cit. no. 36, p. 49 (1906).

PRIONITURUS CYANEICEPS Sharpe; id. Hand-list, ii. p. 29, n. 9 (1900); McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906) (Balabac, Palawan, Calamianes).

PRIONITURUS LUCONENSIS Steere; Sharpe, Hand-list, ii. p. 29, n. 10 (1906); McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906) (Luzon, Marinduque).

TANYGNATHUS Wagl.

TANYGNATHUS GRAMINEUS (Gm.); Hartert, Nov. Zool. vii. p. 230 (1900).

Rothschild's collectors have not met with this species in Buru; it is evidently is a rare bird.

TANYGNATHUS LUCONENSIS (Linn.).

Tanygnathus luconensis Ogilvie-Grant, Ibis, 1896, p. 561; 1897, p. 248 (Samar and Leyte); Meyer & Wigl. B. of

Celebes, i. p. 144 (1898) (Sangi, *Fisher* ?) ; McGreg. Bureau of Gov. Lab. no. 34, p. 12 (1905) (Mindoro).

Tanygnathus lucionensis McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906) ; Ogilvie-Grant, *Ibis*, 1906, p. 494 (Davao and Piso, Mindanao).

TANYGNATHUS SALVADORII Grant.

Tanygnathus luzoniensis Everett, *Ibis*, 1888, p. 282 (Mantanani Isl.) ; id. Journ. Str. Br. R. As. Soc. 1889, p. 176 (part., Mantanani Isl.).

Tanygnathus luconensis, part., *Salvad. Cat. B.* xx. pp. 424–426, specim. *w, x* (1891).

Tanygnathus salvadorii Ogilvie-Grant, *Ibis*, 1896, p. 562 (Mantanani I.) ; Sharpe, *Hand-list*, ii. p. 30, n. 3 (1900).

Mr. Ogilvie-Grant says :—“ A male and a female collected by Mr. A. H. Everett on the island of Mantanani are determined by Count Salvadori (*cf.* *Cat. B. Brit. Mus.* xx. p. 424) as immature examples of *T. luconensis* ; but I think this is a mistake, for both the examples in question have the blue on the top of the head extending from the back of the forehead to the nape, which leaves no doubt in my mind that they are adult birds ; they resemble immature examples of *T. luconensis* in having the shoulders green instead of black, and all the feathers of the inner and median wing-coverts green margined with orange-yellow. Total length 12·5–12·2 inches, wing 7·3–7·15, tail 4·7–4·8, tarsus 0·75–0·7.”

Hab. Mantanani Islands.

TANYGNATHUS TALAUTENSIS Meyer & Wiglesworth.

Tanygnathus luzonensis Meyer et Wigl. (*nec* Linn.) Journ. f. Orn. 1894, p. 239 (Talaut I.).

Tanygnathus talautensis Meyer et Wigl. *Abh. Mus. Dresd.* 1894–95, no. 9, p. 2 (Talaut I.) ; iid. *B. of Celebes*, i. p. 145 (1898) ; Hartert, *Nov. Zool.* v. p. 88 (1898) ; Sharpe, *Hand-list*, ii. p. 30, n. 8 (1900).

Similar to *T. luconensis* (L.), but larger, with crown, nape, and ear-coverts blue, this colour sharply defined on the hind-neck. Wing 202–222 mm., tail 119–142, bill from cere 33·5–39.

Hab. Talaut Islands: Kabruang, Karkellang, and Esang.

According to the describers, probably only a subspecies, connected with the Philippine bird through the Sulu Islands form, which also is decidedly larger than the Philippine form (*cf.* Cat. B. xx. p. 426).

TANYGNATHUS MEGALORHYNCHUS (Bodd.); Meyer & Wigl. B. of Celebes, i. p. 146 (1898); Hartert, Nov. Zool. iii. p. 176 (1896) (Djampea); v. pp. 44 (Flores), 89 (1898) (Linong, Talaut group, typical); Rothsch. & Hartert, Nov. Zool. viii. p. 86 (1901); Hartert, op. cit. x. p. 45 (1903) (Batjan).

Tanygnathus megalorhynchus megalorhynchus Hartert, Nov. Zool. x. p. 23 (1903).

The distribution of this species as restricted by Dr. Hartert is, according to him, as follows:—"It extends from N.W. New Guinea over the western Papuan Islands to the northern Moluccas, to Flores, Djampea between Celebes and Flores, and the islands north of Celebes—not only to Talaut, Sangi, Siao, but even to the small islands close to the coast: Mantehage, Biarro, and Tagulandang."

As to the specimens from Djampea and Flores, with the wings outwardly green, hardly with any blue tinge at all and perhaps a shade darker green, Dr. Hartert says that perhaps they should receive a special name.

According to Meyer and Wigglesworth, specimens from Djampea are intermediate between *T. megalorhynchus* and *T. sumbensis*.

TANYGNATHUS SUMBENSIS Meyer.

Tanygnathus megalorhynchus, part., Salvad. Cat. B. xx. pp. 426, 428 (note) (1891).

Tanygnathus megalorhynchus sumbensis Hartert, Nov. Zool. iii. p. 588 (Sumba) (1896); Meyer & Wigl. B. of Celebes, i. p. 148 (1898); Hartert, Nov. Zool. x. p. 23 (1903).

I have stated (*l. c.*) that two specimens from Sumba, examined by me, did not shew any differences from typical *T. megalorhynchus*.

Dr. Meyer and Mr. Wigglesworth and also Dr. Hartert

insist on the slight differences pointed out by Dr. Meyer. Dr. Hartert says:—"It is of the same size as typical *T. megalorhynchus*, and has outwardly blue quills, but the under wing-coverts are greenish yellow [not deep yellow] and under surface greener and darker. It is a very distinct race."

TANYGNATHUS VIRIDIPENNIS Hartert.

Tanygnathus megalorhynchus viridipennis Hartert, Nov. Zool. x. p. 22 (Tukang Besi) (1903).

"*Tanygnathus T. megalorhyncho* typico simillimus, sed remigibus extus viridibus, minime cæruleis, rostro alisque minoribus."

Wing 230 to 245 mm., while in typical *T. megalorhynchus* it is 240 to 266. Iris pale yellow.

Hab. in Insulis Tukang-Besi.

TANYGNATHUS AFFINIS Wall.; Hartert, Nov. Zool. vii. p. 230 (1900) (Kayeli).

TANYGNATHUS SUBAFFINIS Sclat.; Finsch, Not. Leyd. Mus. xxii. p. 290 (Babber).

Tanygnathus megalorhynchus subaffinis Hartert, Nov. Zool. xiii. p. 294 (1906) (Babber).

TANYGNATHUS MUËLLERI (Temm.).

Tanygnathus muelleri Büttik. Zool. Erg. Weber's Reise Ost-Ind. iii. p. 273 (1893); Meyer & Wigl. Abh. Mus. Dresd. 1895, no. 8, p. 5; 1896, no. 2, p. 8; Hartert, Nov. Zool. ii. p. 160 (1896); Meyer & Wigl. B. of Celebes, i. p. 140 (1898).

TANYGNATHUS SANGIRENSIS Meyer & Wigglesworth; Sharpe, Hand-list, ii. p. 30, n. 9 (1900).

Eclectus muelleri, part., Schleg. N. T. D. iii. p. 185 (1865).

Tanygnathus muelleri, part., Wald. Tr. Z. S. viii. p. 31 (1872); Salvad. Ann. Mus. Civ. Gen. ix. p. 53 (Sanghir) (1876); Rehnw. Journ. f. Orn. 1881, p. 245 (Consp. Psitt. p. 133); Meyer, Isis, 1885, p. 6; W. Blas. Orn. 1888,

p. 556; Hickson, Natural. in Celebes, p. 155 (1889); Salvad. Cat. B. xx. p. 431, specim. *k* imm. (1891).

Tanygnathus muelleri sangirensis Meyer et Wigl. Journ. f. Orn. 1894, p. 113 (Sanghir I.), p. 239 (Talaut I.); iid. Abh. Mus. Dresd. 1894-95, p. 2 (Talaut I.); Hartert, Nov. Zool. v. p. 89 (1898) (Lirung); Meyer & Wigl. B. of Celebes, i. p. 142 (1898).

“*Tanygnathus T. muelleri* (M. et Schl.) ex insula Celebes similis, sed major et juvenis capite cærulescenti distinguendus. Long. al. 235, caud. 145, culm. a cer. 35·5, tars. 25 mm.”

Hab. Sanghir Islands and Talaut Islands.

In the ‘Catalogue of Birds’ I have already pointed out that a Sanghir bird differed from the Celebean examples. Specimens from Talaut Islands are somewhat smaller than those from the Sanghir Islands (*Meyer and Wigglesworth*).

TANYGNATHUS EVERETTI Tweedd.; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906) (Luzon, Mindanao, Mindoro, Negros, Panay, Samar).

TANYGNATHUS BURBIDGEI Sharpe; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906) (Bongao, Sulu, Tawi-Tawi).

PALÆORNIS Vig.

PALÆORNIS EUPATRIA (Linn.); Blanf. Faun. of B. Ind., Birds, iii. p. 247 (1895).

PALÆORNIS NEPALENSIS Hodgs.; Blanf. t. c. p. 248.

PALÆORNIS INDOBURMANICA Hume; Blanf. t. c. p. 248.

PALÆORNIS MAGNIROSTRIS Ball; Blanf. t. c. p. 249; Richmond, Pr. U. S. Nat. Mus. xxv. p. 303 (1902) (Andaman).

PALÆORNIS TORQUATA (Bodd.); Blanf. t. c. p. 250.

PALÆORNIS DOCILIS (Vieill.); Salvad. Ann. Mus. Civ. Gen. (2) xx. p. 32 (1901) (Form).

Palæornis cubicularis (Hasselq.); Rehw. Vög. Afr. ii. p. 21 (1902), iii. p. 822 (1905).

PALÆORNIS CYANOCEPHALA (Linn.); Blauf. Faun. of B. Ind., Birds, iii. p. 251 (1895).

PALÆORNIS ROSA (Bodd.); Blauf. t. c. p. 252.

PALÆORNIS SCHISTICEPS Hodgs.; Blauf. t. c. p. 253.

PALÆORNIS INTERMEDIA Rothsch. Nov. Zool. ii. p. 492 (India) (1895); Sharpe, Hand-list, ii. p. 31, n. 12 (1900).

“*Under-mandible* orange-yellow. *Maxilla* orange-crimson, with yellow tip. *Forehead* and orbital region rufous plum-purple; rest of head and cheeks slaty purple, not quite so dull as in *P. rosa*. Separating the head colour from the back is a narrow black collar joined to broad black mandibular stripes. This black collar is followed by an ill-defined band of bright verdigris-green. Back and scapulars oil-green; rump, wing, and upper tail-coverts more grass-green with a slight bluish tinge; a large maroon spot on the middle wing-coverts. Central tail-feathers missing; rest of tail as in *P. schisticeps*, but outer webs more blue. Whole *under surface* yellowish apple-green. *Under-wing-coverts* bright glaucous green; wings like those of the three allied species (?).

“Wing 6 inches, bill 0·8.

“*Hab.* India.

“The single skin now before me is of the so-called Bombay preparation, and therefore most likely came from the Western Provinces. With it came two skins of *P. schisticeps*.

“This species is somewhat intermediate between *Palaornis schisticeps* and *P. cyanocephala* in size and coloration, but is nearer *P. schisticeps*, with which it agrees in the colour of the *under mandible*, which is black in *P. cyanocephala* and *P. rosa*.” (Rothschild.)

A doubtful species, not improbably established on a hybrid!

PALÆORNIS FINSCI Hume; Blauf. Faun. of B. Ind., Birds, iii. p. 254 (1895); Sclat. P. Z. S. 1902, p. 170 (specim. living in the Zool. Soc. Gardens).

PALÆORNIS COLUMBOIDES Vig.; Bourdillon, Journ. Bomb.

Soc. xv. p. 666 (1904) (nesting habits); Blanf. Faun. of B. Ind., Birds, iii. p. 255 (1895).

Palaornis peristerodes Finsch; Salvad. Cat. B. xx. p. 460 (1891); Sharpe, Hand-list, ii. p. 32, n. 15 (1900).

PALÆORNIS CALTHROPÆ Layard; Blanf. t. c. p. 256.

Palaornis calthorpæ Sharpe, Hand-list, ii. p. 32, n. 16 (1900).

PALÆORNIS DERBYANA Fras.; Rothsch. Bull. B. O. C. viii. p. lvi (1899).

Mr. Rothschild states that he has lately received two living females of this species, said to have come from Hainan. The description of the female is still wanting.

PALÆORNIS SALVADORII Oust.

Palaornis derbyanus Swinh. (nec Fraser), P. Z. S. 1873, p. 690 (Moupin); David et Oust. Ois. Chin. p. 1, pl. 1. (1877).

Palaornis derbyana, part., Salvad. Cat. B. xx. pp. 453, 454 (1891); ? Oustalet, in Bouvalot's De Paris au Tonkin, App. (1892).

Palaornis salvadorii Oust. Bull. Soc. Zool. Fr. xviii. p. 19 (Szechuen and Thibet) (1893); Ogilvie-Grant, Ibis, 1900, p. 600 (different from *P. derbyana*).

Palaornis derbyana salvadorii Rothsch. Bull. B. O. C. viii. p. lvi (1899).

Dr. Oustalet has not given a complete description of this species; he says that the upper parts are coloured as in *Palaornis derbyana*, while the under parts are differently coloured, being less rosy and more purple, especially in the males; the dimensions are smaller, total length 460 millimetres instead of 510.

Having seen specimens of this bird in the Paris Museum, I may add that the under wing-coverts are *green* in *P. salvadorii*, while they are *vinous* in *P. derbyana*, approaching in that respect *P. fasciata*.

Hab. Szechuen and Thibet.

Mr. Rothschild would only give subspecific rank to

P. salvadorii, while Mr. Ogilvie-Grant, speaking of a fine male collected in Yunnan by Capt. Wingate, declares that *P. salvadorii* is a perfectly distinct species. He says:—"Among other distinctive characters of *P. salvadorii* may be mentioned the red upper mandible*, the purple-blue of the underparts, uniform in colour with the crown, and the absence of the pale brownish-buff band bordering the hinder part of the head and cheeks, so distinctly shown in the figures given by Fraser, P. Z. S. 1850, pl. 25, and in Gould's 'Birds of Asia,' vi. pl. 9 (1858)."

PALÆORNIS FASCIATA (P. L. S. Müll.); Blanf. Faun. of B. Ind., Birds, iii. p. 256 (1895); Ogilvie-Grant, Ibis, 1900, p. 599 (S.W. Yunnan).

Palaornis fasciatus Richm. Pr. U. S. Nat. Mus. xxv. p. 303 (1902) (Andamans); xxvi. p. 495 (1903) (Simalur).

Simalur (Babi, Simalu, or Si Malu of some maps) is an island on the west coast of Sumatra. Nine specimens were obtained, agreeing in size with Andaman birds (*Richmond*).

PALÆORNIS MAJOR Richm. Pr. Biol. Soc. Wash. xv. p. 188 (Pulo-Babi) (1902); id. Pr. U. S. Nat. Mus. xxvi. p. 495 (1903).

"Identical in colour with *P. fasciatus*, but much larger. Length (in the flesh) 438 mm.; wing 192; tail 230; tarsus 18; culmen 18." (*Richmond*).

Hab. Pulo Babi and Pulo Lasia, off the west coast of Sumatra.

Mr. Richmond mentions seven specimens of this new species. Strangely enough, Pulo Babi and Pulo Lasia lie fourteen miles south-east of Simalur, where typical *P. fasciata* was found.

PALÆORNIS CANICEPS Blyth; Blanf. Faun. of B. Ind., Birds, iii. p. 258 (1895); Richm. Pr. U. S. Nat. Mus. xxv. p. 303 (1902) (Great and Little Nicobar).

PALÆORNIS MODESTA Fras.; Salvad. Ann. Mus. Civ. Gen. (2) xii. p. 127 (1892) (Engano).

* The bill is entirely black in the type of *P. derbyana*.

PALÆORNIS NICOBARICA Gould; Richm. Pr. U. S. Nat. Mus. xxv. p. 303 (1902) (Nicobars).

Palæornis erythrogenys Blyth; Blanf. Faun. of B. Ind., Birds, iii. p. 258 (1895).

PALÆORNIS TYTLERI Hume; Blanf. t. c. p. 258; Richm. Pr. U. S. Nat. Mus. xxv. p. 304 (1902) (Lawrence Island and South Andaman).

PALÆORNIS LONGICAUDA (Bodd.); Hartert, Nov. Zool. ix. p. 196 (1902).

PALÆORNIS ALEXANDRI (Linn.); Hartert, op. cit. iii. p. 552 (1896) (Bali); Bartels, Nat. Tijdschr. Ned. Ind. lxi. p. 137 (1902); id. Journ. f. Orn. 1906, p. 512.

SPATHOPTERUS North.

Type.

Spathopterus, North, Ibis, 1895, p. 339
(woodcut of the primaries) *S. alexandræ*.

The generic character for separating *Spathopterus* from *Polytelis* consists in the third primary "singularly elongated and terminating in a spatule."

SPATHOPTERUS ALEXANDRÆ (Gould); North, Ibis, 1895, p. 340; id. Rep. Horn Sc. Exp. to Centr. Austr., part ii. Aves, p. 60, pl. v. (1896); Sharpe, Hand-list, ii. p. 33 (1900); Kcartland, Victorian Naturalist, xxii. p. 83 (1905).

Polytelis alexandræ Hurst, Emu, iii. p. 115 (1903); Astley, Avicultural Magazine, n. s., iii. p. 248 (1905).

Polytelis (Spathopterus) alexandræ Kcartland, Emu, v. p. 89 (1905).

This species, discovered in the north of Australia, has been found breeding in South Australia, and a Mr. Hunter has obtained it also in the West.

PTISTES Gould.

PTISTES COCCINEOPTERUS Gould; Le Souëf, Ibis, 1899, p. 360 (nest and eggs).

Ptistes erythropterus coccineopterus Hartert, Nov. Zool. xii. p. 212 (1905).

Considered distinct from *P. erythropterus* by Mr. Le Souëf, but according to Dr. Hartert very slightly different.

PTISTES JONQUILLACEUS (Vieill.); Hartert, Nov. Zool. v. p. 120 (1898) (Timor).

PTISTES WETTERENSIS Salvad.

Ptistes jonquillaceus, part., Finsch, Not. Leyd. Mus. xxii. p. 291 (Wetter only).

Ptistes jonquillaceus wetterensis Hartert, Nov. Zool. xi. p. 195 (1904).

APROSMICTUS Gould.

APROSMICTUS CYANOPYGIUS (Vieill.); Rob. & Lav. Ibis, 1900, p. 644 (Cairns); North, Rec. Austr. Mus. v. p. 265 (xanthochroic) (1904).

APROSMICTUS CHLOROPTERUS Rams.; Rothsch. & Hartert, Nov. Zool. viii. p. 87 (1901).

APROSMICTUS CALLOPTERUS D'Alb. & Salvad.; Rothsch. & Hartert, l. c. (Tana Mera, Takor, N. coast of New Guinea).

APROSMICTUS BURUENSIS Salvad.; Sharpe, Hand-list, ii. p. 33, n. 6 (1900).

Aprosmictus amboinensis buruensis Rothsch. & Hartert, Nov. Zool. vii. p. 230 (1900) (Kajeli and Mount Mada).

APROSMICTUS DORSALIS (Q. & G.); Rothsch. & Hartert, op. cit. viii. p. 87 (1901) (Kapaur).

APROSMICTUS SULAENSIS Rehnw.; Meyer & Wigl. Abh. Mus. Dresd. 1896, no. 2, p. 8; iid. B. of Celebes, p. 170 (1898).

PSITTACELLA Schleg.*

PSITTACELLA BREHMI (Rosenb.); Hartert, Nov. Zool. iii. p. 18 (1896).

Psittacella brehmi typica Hartert, Ibis, 1897, p. 60.

Psittacella brehmi brehmi Rothsch. & Hartert, Nov. Zool. viii. p. 87 (1901).

PSITTACELLA PALLIDA Meyer.

Psittacella sp., De Vis, Report, p. 1, sp. 9 (1894).

* Cf. Hartert, "On the Genus *Psittacella*" ('Ibis,' 1897, pp. 58-60, pl. iii.).

Psittacella brehmi, part., *Salvad. Cat. B.* xx. p. 498 (1891); *id. Ann. Mus. Civ. Gen.* (2) xvi. p. 62 (Moroka) (1896).

Psittacella brehmi pallida Hartert, *Nov. Zool.* iii. pp. 18, 255, 532 (1896); *id. Ibis*, 1897, pp. 58-60; *Rothsch. & Hartert, Nov. Zool.* viii. p. 87 (1901).

Dr. Hartert insists on considering the slight differences existing between the South-eastern and Arfak specimens as subspecific; according to me the slightly more greyish hue of the olive throat, the slightly paler cheeks, and the more yellowish colour of the green under-parts are not sufficient to separate the birds of the two localities. As to the bluish-green tinge of the tips of the rectrices underneath, pointed out by Mr. de Vis, I have already remarked that it is to be found also in northern birds, and seems to be apparent only in old birds.

PSITTACELLA PICTA *Rothsch. Bull. B. O. C.* vol. vi. p. v (Mt. Victoria) (1896); *Hartert, Nov. Zool.* iii. p. 533 (1896); *id. Ibis*, 1897, p. 59, pl. iii.; *Rothsch. Ibis*, 1897, p. 112; *Rothsch. & Hartert, Nov. Zool.* viii. p. 87 (1901).

Male. Crown chestnut-rufous, sides of the head greyish brown; an orange-yellow collar on the hind-neck; sides of the neck with a chestnut-rufous spot (?). Above green; lower rump and upper tail-coverts deep red; back and rump with black cross-bars; wings blackish, outer webs of quills green, the primaries with yellow edges towards the tips; throat and breast blue; under tail-coverts red; rest of under parts green; a blue tinge along the middle of the abdomen; under wing-coverts green, bend of wing bluish. Wing 112 mm., tail 70, culmen 15.

Female. No orange-yellow collar, cross-bars above more numerous; breast yellowish, with broad black cross-bands; abdomen with indistinct yellowish and dusky cross-bars. Otherwise like the male (*Rothschild*).

The *young male* resembles the old female, but the head is not brownish red, but brown with greenish edges to the feathers (*Rothsch. & Hartert*).

Hab. Mount Victoria, in the Owen Stanley Range,

British New Guinea, at elevations of from 5000 to 7000 feet, and also on Mt. Knutsford (11,000 feet).

The plate in 'The Ibis' gives a very good idea of this bird.

PSITTACELLA MODESTA (Schl.) ; Hartert, *Ibis*, 1897, p. 60.

PSITTACELLA MADARASZI Meyer ; Hartert, l. c. ; Rothsch. *Nov. Zool.* v. p. 511 (1898).

Psittacella madarani (lapsu) Rothsch. & Hartert, op. cit. viii. p. 87 (1901).

PSITTINUS Blyth.

PSITTINUS INCERTUS (Shaw).

Psittinus malaccensis (Lath.) ; Hartert, *Nov. Zool.* ix. pp. 196, 542 (1902) (Pehang, E. Malay Peninsula).

Latham's name *Psittacus malaccensis*, according to me, cannot be used, as there was already a *Psittacus malaccensis* (Gm.).

PSITTINUS ABBOTTI Richm. *Pr. Biol. Soc. Wash.* xv. p. 188 (1902) (Simular Isl., west coast of Sumatra) ; id. *Pr. U. S. Nat. Mus.* xxvi. p. 496 (1903).

"This species is conspicuously unlike the only previously known member of the genus, *P. incertus*, differing in having the mantle, rump, upper tail-coverts and lower surface green, a brighter blue head, a greenish patch on the crown, and a black band across the nape. It is also considerably larger than the common species.

"The female is duller in colour, has no blue on the head (which is like the mantle), and no black band on the nape." (*Richmond.*)

Wing of the males 130-144 mm., of the females 134-141 mm.

Hab. Simular Island, off the west coast of Sumatra.

BOLBOPSITTACUS Salvad.

BOLBOPSITTACUS LUNULATUS (Scop.) ; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906) (Luzon).

BOLBOPSITTACUS INTERMEDIUS Salvad.

Bolbopsittacus intermedius Bourns & Worcester, Occ. Pap. Minnes. Ac. Sc. i. no. 1, pp. 36, 50 (Samar) (1894); Ogilvie-Grant, Ibis, 1897, p. 248 (Samar and Leyte); McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906) (Leyte, Samar).

Female. "It differs from the male in having the blue of the head confined to the throat, the cheeks being light green; around the eye a ring of green lighter than that of crown; the blue collar is replaced by an indistinct collar of faint orange-yellow; rump only slightly lighter than back, and green, not yellow as in the male; under surface slightly lighter and more yellowish; thighs green instead of yellow."

Young male. "Is like the female, but has less blue on sides of throat." (*Bourns & Worcester.*)

Hab. Samar and Leyte.

The female and the exact locality were unknown before Messrs. Bourns and Worcester made them known.

BOLBOPSITTACUS MINDANENSIS (Steere); Ogilvie-Grant, Bull. B. O. C. xvi. pp. 17, 36 (1905); id. Ibis, 1906, p. 494; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 49 (1906).

By an oversight Mr. Grant has redescribed this species as new.

AGAPORNIS Selby.

AGAPORNIS MADAGASCARIENSIS (Bodd.) ; Richm. Pr. U. S. Nat. Mus. xix. p. 685 (1897).

Agapornis cana (Gm.) ; Salvad. Cat. B. xx. p. 507 (1891).

Agapornis canus Rehnw. Vög. Afr. ii. p. 19 (note) (1902).

AGAPORNIS TARANTA (Stanl.) ; Shell. B. Afr. i. p. 140 (1896); Salvad. Boll. Mus. Tor. xii. no. 287, p. 1 (1897); Rehnw. Vög. Afr. ii. p. 20 (1902).

AGAPORNIS PULLARIA (Linn.) ; Boc. Journ. Lisb. (2) no. vi. p. 77 (1891); Emin, Journ. f. Orn. 1891, pp. 342, 344, 345; Rehnw. Journ. f. Orn. 1892, p. 21; Sharpe, Ibis, 1892, p. 312; Porter, Avicult. Mag. (2) ii. pp. 350-352 (1904) (breeding in confinement); Rehnw. Vög. D. O.-Afr. p. 100 (1894) (Insel

Ikurn, in Victoria Nyansa) ; id. Journ. f. Orn. 1894, p. 31 ; 1896, p. 8 ; 1897, pp. 13, 53 ; Shell. B. Afr. i. p. 141 (1896) ; Neum. Journ. f. Orn. 1899, p. 63 ; Rehnw. Vög. Afr. ii. p. 21 (1902) ; Sharpe, Ibis, 1902, p. 109 (Entebbe) ; Jackson, t. c. p. 613 ; Salvad. Mem. Ac. Tor. (2) liii. pp. 11, 35 (San Thomé), p. 119 (1903).

AGAPORNIS FISCHERI Rehnw. ; Emin, Journ. f. Orn. 1891, pp. 338, 339, 342 ; Rehnw. Vög. D. O.-Afr. p. 100 ; Shell. B. Afr. i. p. 141 (1896) ; Neum. Journ. f. Orn. 1899, p. 63 ; Rehnw. Vög. Afr. ii. p. 23 (1902) (Ussuri, Katima, Bussissi, Karuma, Muansa).

AGAPORNIS PERSONATA Rehnw. ; Emin, Journ. f. Orn. 1891, pp. 59, 342 ; Rehnw. t. c. p. 144 ; id. Vög. D. O.-Afr. p. 10 (1894) ; Shell. B. Afr. i. p. 141 (1896) ; Neum. Journ. f. Orn. 1899, p. 63 ; Rehnw. Vög. Afr. ii. p. 23 (1902).

Hab. German East Africa.

Herr Neumann informs us that this species was erroneously mentioned (Journ. f. Orn. 1882, pp. 40, 55, 326 ; Cat. B. xx. p. 512) as from Serian, on the Victoria Nyauza.

AGAPORNIS NIGRIGENIS W. L. Sclat. B. O. C. xvi. p. 61 (1906).

General colour green, tinged with olive on the hinder half of the head and neck, brighter on the [upper] tail-coverts ; front half of the crown and forehead sienna-brown ; sides of the face, including the ear-coverts and throat, black ; quills dusky, washed with bluish green on the outer webs ; tail dark green, all but the middle pair of feathers with a red stripe along the shaft and a subterminal dusky spot ; under surface green, slightly lighter than the back and with a patch of salmon-red on the lower throat. Bill rosy-red, paler, almost white, at the base ; legs brown (in skin). Length (in skin) 6.25 inches, wing 3.6, tail 1.6, culmen .62, tarsus .50.

The female has the front of the head dusky rather than sienna-brown, and this colour does not extend so far back as in the case of the original specimen.

Hab. Mugnazi River, North-west Rhodesia.

AGAPORNIS ROSEICOLLIS (Vieill.) ; Fleck, Journ. f. Orn. 1894, pp. 372, 395 (S.W. Africa); Kush. op. cit. 1895, p. 98 (egg); Shell. B. Afr. i. p. 141 (1896); Rehnw. Vög. Afr. ii. p. 19 (1902).

AGAPORNIS LILIANÆ Shelley.

Agapornis roseicollis Kirk (nec Vieill.), Ibis, 1864, p. 329 (Shiré, between Nyassa and the rapids).

Agapornis lilianæ Shell. Ibis, 1894, p. 466, pl. xii. (Upper Shiré); id. B. Afr. i. p. 141, no. 1930 (1896); Sharpe, Hand-list, ii. p. 35, no. 5 (1900); Alex. Ibis, 1900, pp. 431, 432; Shell. Ibis, 1901, p. 176; Rehnw. Vög. Afr. ii. p. 22 (1902).

Head and throat brick-red, inclining to vermilion towards the forehead, with the back of the head and hinder neck greenish yellow; remainder of the plumage bright grass-green, slightly paler and yellower on the under parts; inner webs of the quills dark brown; tail with a blackish sub-terminal band and a scarlet basal patch on all but the central feathers. Bill rosy red, fading into white at the base of the upper mandible. Total length 5·3 inches, culmen 0·75, wing 2·7, tail 1·8, tarsus 0·55.

Female. Similar.

Hab. Upper Shiré, Nyasaland (*White*).

Easily distinguished from *A. roseicollis* by having no blue whatever on the rump and upper tail-coverts, which are green, like the back.

AGAPORNIS SWINDERENIANA (Kuhl).

Psittacula swinderniana Büttik. Reisebild. Liberia, App. p. 475 (1890).

Agapornis swindereniannus Rehnw. Vög. Afr. ii. p. 19 (1902).

AGAPORNIS ZENKERI Rehnw.

Agapornis, ♂, Emin, P. Z. S. 1894, p. 599.

? *Agapornis swinderniana* Emin, l. c.

Agapornis zenkeri Rehnw. Orn. Monatsb. iii. p. 112 (Cameroon) (1895); id. Journ. f. Orn. 1896, p. 8, Taf. ii.

fig. 1; Shell. B. Afr. i. p. 141 (1896); Sharpe, Hand-list, ii. p. 35, n. 9 (1900); Rechnw. Vög. Afr. ii. p. 19 (1902).

“*A. swinderenianæ* simillima, sed fascia cervicali aurantiorubra nec olivacea; iugulo dilute aurantio-flavescente distinguenda; iride flava; †pedibus virescentibus; rostro corneo.” (Reichenow.)

Hab. Jaunde in Cameroon.

LORICULUS Blyth.

LORICULUS VERNALIS (Sparrm.); Richm. Pr. U. S. Nat. Mus. xxv. p. 304 (1902) (Nicobars).

LORICULUS PUSILLUS (Gray); Bartels, Nat. Tijdschr. Ned. Ind. lxi. p. 138 (1902); id. Journ. f. Orn. 1906, p. 512.

LORICULUS EXILIS Schleg.; Meyer & Wigl. Abh. Mus. Dresd. 1896, no. 1, p. 4; iid. B. of Celebes, i. p. 149 (1898).

LORICULUS CHRYSNOTUS Sclat.; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 50 (1906) (Cebu).

LORICULUS REGULUS Souancé; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 50 (1906) (Guimaras, Masbate, Negros, Panay, Ticao).

LORICULUS BOURNSI McGreg. Bureau of Gov. Lab. no. 25, p. 16 (1905); McGreg. & Worcest. op. cit. no. 36, p. 50 (1906) (Romblon, Libuyan, Tablas).

“Related to *L. regulus*, but male distinguished by the smaller orange crown-patch and weaker nuchal band. I am inclined to think that the red breast-patch averages smaller in *L. bournsi*; but I do not care to offer this as a reliable character. The female is indistinguishable from the female of *L. regulus*.”

Hab. Romblon, Libuyan, Tablas.

LORICULUS PHILIPPENSIS (P. L. S. Müll.); McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 50 (1906) (Catanuanes, Luzon, Marinduque).

LORICULUS MINDORENSIS Steere; Hartert, Nov. Zool. ii. p. 487 (1895); McGreg. Bureau of Gov. Lab. no. 34, p. 12

(1905) ; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 50 (1906) (Mindoro).

LORICULUS SIQUIJORENSIS Steere ; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 50 (1906) (Siquijor).

LORICULUS INDICUS (Gm.) ; Blanf. Fauna of Brit. Ind., Birds, iii. p. 262 (1895).

LORICULUS APICALIS Souancé ; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 50 (1906) (Basilan, Bazol, Dinigat, Mindanao) ; Ogilvie-Grant, Ibis, 1906, p. 463 (Mt. Apo).

LORICULUS WORCESTERI Steere.

Loriculus hartlaubi Tweedd. P. Z. S. 1878, p. 340 (Amparo, S. Leyte) (nec 1873) ; id. Orn. Works, p. 595 (Amparo) (1881) ; Wardl. Rams., Tweedd. Orn. Works, p. 655 (part., Leyte) (1881).

Loriculus worcesteri Steere, List B. & M. Steere Exped. p. 6 (Samar, Leyte) (1890) ; Bourns & Worcest. Occ. Pap. Minnes. Acad. Sc. i. no. 1, p. 50 (Samar, Leyte) (1894) ; Ogilvie-Grant, Ibis, 1897, p. 249 ; Sharpe, Hand-list, ii. p. 36, n. 12 (1900) ; McGreg. & Worcest. Bureau of Gov. Lab. p. 50 (1906).

Loriculus apicalis, part., Salvad. Cat. B. xx. pp. 528, 529 specim. *d, e, f-l* (1891).

Messrs. Bourns and Worcester insist on the specific distinction of *L. worcesteri* from *L. apicalis* as follows :—

“ *First*, the red mark on crown of Samar birds is *distinctly narrower* than in those from Mindanao, and *tapers sharply to a point* on the nape, instead of spreading out and *ending broadly*.

“ *Secondly*, the feathers of the back are *barely tinged* with golden, not one of our specimens showing anything like the amount of colour exhibited by Mindanao birds.”

Hab. Samar and Leyte.

LORICULUS BONAPARTEI Souancé ; McGreg. & Worcest. Bureau of Gov. Lab. no. 36, p. 50 (1906) (Bongao, Sulu, Tawi-Tawi).

LORICULUS GALGULUS (Linn.) ; Hartert, Nov. Zool. ix.

pp. 196, 542 (1902); Richm. Pr. U. S. Nat. Mus. xxvi. p. 496 (1903) (Pulo Tuanku).

LORICULUS SCLATERI Wall.; Meyer & Wigl. Abh. Mus. Dresd. 1896, no. 2, p. 9; iid. B. of Celebes, i. p. 153 (1898).

LORICULUS RUBER Meyer & Wigl.; Sharpe, Hand-list, ii. p. 36, n. 17 (1900).

Loriculus sclateri ruber Meyer & Wigl. Abh. Mus. Dresd. 1896, no. 2, p. 9; iid. B. of Celebes, i. p. 154 (1898).

Similar to *L. sclateri*, but upper back scarlet and forehead conspicuously red. Wing 90 mm., tail 40, tarsus 12·5, culmen from cere 11·5.

Hab. Peling and Banggai Islands, between Sula Islands and North-eastern Celebes.

LORICULUS QUADRICOLOR Wald.; Meyer & Wigl. B. of Celebes, i. p. 157 (1898).

LORICULUS STIGMATUS (M. & S.); Meyer, Vogelskel. pt. 18, p. 44, t. clxx. (1892); Büttik. Z. Erg. Weber's Reise Ost-Ind. iii. p. 273 (1893); Meyer & Wigl. Abh. Mus. Dresd. 1895, no. 8, p. 6; 1896, no. 1, p. 7, no. 2, p. 9; Hartert, Nov. Zool. iii. p. 160 (1896), iv. p. 165 (1897); Meyer & Wigl. B. of Celebes, i. p. 158 (1898).

LORICULUS AMABILIS Wall.; Hartert, Nov. Zool. x. p. 46 (1903).

LORICULUS CATAMENE Schleg.; Meyer & Wigl. B. of Celebes, i. p. 151 (1898).

LORICULUS MEEKI Hartert.

Loriculus aurantiifrons Sharpe (nec Schleg.), Journ. Linn. Soc., Zool. xvi. p. 426 (Milne Bay) (1882); Salvad. Orn. Pap. c Mol. ii. p. 516 (Milne Bay) (1883); id. Cat. B. x. p. 538 (part., S.E. Guinea) (1890).

Loriculus aurantiifrons meeki Hartert, Nov. Zool. ii. p. 62 (Fergusson I.) (1895), iii. p. 245 (1896); Rothsch. & Hartert, Nov. Zool. p. 88 (1891).

Loriculus meeki Sharpe, Hand-list, ii. p. 37, n. 23 (1900).

Similar to *L. aurantiifrons*, but larger—wing 2·8–2·9 inches, instead of 2·52–2·7,—and the females shew no trace

of red on the base of the feathers of the forehead: "iris white" (*Meek*).

Hab. Fergusson Island and S.E. New Guinea.

The above-mentioned characters, already pointed out by me as distinguishing the S.E. New Guinea birds, have been deemed sufficient by Mr. Hartert to separate them as belonging to a subspecies.

[To be continued.]

VI.—*On the Birds of the Island of Formosa.*

By W. R. OGILVIE-GRANT and J. D. D. LA TOUCHE.

(Plates III. & IV.)

THE present paper, which, so far as we are aware, contains a complete list of all the species of Birds known to occur on the Island of Formosa, is based on a remarkable collection made by the well-known traveller and naturalist, Mr. Walter Goodfellow, on Mount Morrison and some of the neighbouring peaks of Central Formosa, during the months of January, February, and March 1906.

On finding that Mr. J. D. D. La Touche, who has visited and made collections of birds in both the north and south of Formosa, was also engaged in preparing a list of the birds known to occur on that island, I suggested that we should combine our work, and to this he kindly assented.

A long letter received from Mr. Goodfellow with the collection contains such an excellent account of his adventurous journey that I feel that I cannot do better than repeat the story in his own words. He writes:—"I am not very satisfied with the Formosan collection. Formosa is the most difficult country to collect in that I have yet visited and the *most* uninteresting. No one can imagine the difficulties one has to put up with, and I should never have been able to get into the interior at all, had it not been for your letters of introduction. The Japanese allow no one into the savage territory, but the truth is that no one could go there